Claims

1.   A data updating system for updating data in an electronic device by using update data stored in a portable storage medium, the data updating system, comprising:

5   an update-frequency data storing unit that stores update-frequency data including information on a frequency at which data update can be performed by using the update data;

an update permission judging unit that judges the presence or absence of data update permission on the basis of the update-frequency data when data

10   is updated by a data updating device for carrying out data update processing in the electronic device;

an update data reading unit that reads the update data on the basis of the data update permission;

an update frequency updating unit that updates the update-frequency

15   data when the update data is read by the data updating device on the basis of the data update permission; and

a post-update data restoring unit that restores post-update data by using both the update data and the pre-update data or by using only the update data.

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2.   The data updating system according to claim 1, further comprising an update data deleting unit that deletes the update data when the update permission judging unit judges that there is no data update permission.

25   3.   The data updating system according to claim 1, further comprising an

39

identifier storing unit that stores a device identifier for identifying the data update device,

wherein the update-frequency data storing unit stores the corresponding update-frequency data every device identifier.

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4.   The data update system according to claim 1 or 3, wherein the update-frequency data storing unit stores update-frequency data including information indicating an update frequency at which the data update is carried out by the data updating device and information indicating an upper limit

10   frequency at which the data update is allowed.

5.   The data updating system according to any one of claims 1 to 4, wherein the update permission judging unit and the update frequency updating unit are provided in the portable storage medium.

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6.   The data updating system according to any one of claims 1 to 5, further comprising:

a restoration result judging unit that judges pertinence of post-update data restored by the post-update data restoring unit; and

20   a post-update data writing unit that writes the post-update data.

7.   The data updating system according to any one of claims 1 to 6, wherein the update data includes differential data between the pre-update data and the post-update data.

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8.   An external storage medium for a data updating system for updating data in an electronic device by using update data, and the external storage medium being connectable to and separable from a data updating device for carrying out data update processing in the electronic device, the external

5   storage medium, comprising:

an update data storing unit that stores the update data;

an update-frequency data storing unit that stores update-frequency data including information on a frequency at which data update can be performed by using the update data;

10   an update permission judging unit that judges the presence or absence of data update permission on the basis of the update-frequency data when data is updated by the data updating device; and

an update frequency updating unit that updates the update-frequency data when the update data is read by the data updating device on the basis of

15   the data update permission.

9.   The external storage medium for the data updating system according to claim 8, further comprising an update data deleting unit that deletes the update data when the update permission judging unit judges that there is no

20   data update permission.

10.   The external storage medium for the data updating system according to claim 8, wherein the update-frequency data storing unit stores the update-frequency data every device identifier for identifying the data updating

25   device.

41

11.   The external storage medium for the data updating system according to claim 8 or 10, wherein the update-frequency data storing unit stores update-frequency data including information indicating the update frequency at

5   which the data update is carried out by the data updating device and information indicating an upper limit frequency at which the data update is allowed.

12.   A program for making a computer execute the function of each unit of

10   the external storage medium according to any one of claims 8 to 11.

13.   A data updating device in a data updating system for carrying out data update in an electronic device by using update data, and the data updating device being configured to be connectable to an external storage medium for

15   storing the update data, the data updating device comprising:

an update data reading unit that reads the update data on the basis of data update permission in the external storage medium; and

a post-update data restoring unit that restores post-update data by using both the update data and pre-update data or only the update data.

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14.   The data updating device in the data updating system according to claim 13, further comprising an identifier storing unit that stores a device identifier for identifying the device itself.

25   15.   The data updating device in the data updating system according to

claim 13, further comprising:

a restoration result judging unit that judges pertinence of post-update data restored by the post-update data restoring unit; and

a post-update data writing unit that writes the post-update data on the
5   basis of the judgment of the restoration result.

16.   A program for making a computer execute the function of each unit of the data updating device according to anyone of claims 13 to 15.

10   17.   A data updating method for updating data in an electronic device by using update data stored in a portable storage medium, the data updating method comprising steps of:

judging the presence or absence of data update permission when data is updated by a data updating device for carrying out data update processing in
15   the electronic device on the basis of update-frequency data including information on a frequency at which the data update can be carried out by using the update data;

reading the update data on the basis of the data update permission;

updating the update-frequency data when the update data is read by
20   the data updating device on the basis of the data update permission; and

restoring post-update data by using both of the update data and pre-update data or only the update data.

18.   A program for making a computer execute each step in the data
25   updating method according to claim 17.

43